

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10825898
Filing Date	2004-04-15
First Named Inventor	Boyle, William J.
Art Unit	1644
Examiner Name	Schwadron, Ronald B.
Attorney Docket Number	A-451N IDS#2-090309

**U.S.PATENTS**

Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	6479635	B1	2002-11-12	Anderson et al.	
	2	6838262	B1	2005-01-04	Anderson et al.	
	3	7411050	B2	2008-08-12	Anderson	
	4	7449185	B2	2008-11-08	Yamaguchi et al.	
	5	7527790	B2	2009-05-05	Yamaguchi et al.	

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**U.S.PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20050003391	A1	2005-01-06	Anderson	

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	2	20080009014	A1	2008-01-10	Anderson	
	3	20090004196	A1	2009-01-01	Anderson et al.	
	4	20090017033	A1	2009-01-15	Anderson	
	5	20050208580	A1	2005-09-22	Yamaguchi et al.	
	6	20070009520	A1	2007-01-11	Yamaguchi et al.	
	7	20080187540	A9	2008-08-07	Yamaguchi et al.	

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**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> i	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	9626217	WO	A1	1996-08-29	Goto et al. (English equivalent EP 0 816 300)		<input type="checkbox"/>
	2	9700318	WO	A1	1997-01-03	Roodman		<input type="checkbox"/>
	3	9807840	WO	A1	1998-02-26	Nakagawa et al.		<input type="checkbox"/>

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	4	9846644	WO	A1	1998-10-22	Yamaguchi et al.		<input type="checkbox"/>
	5	9846751	WO	A1	1998-10-22	Boyle		<input type="checkbox"/>
	6	9849305	WO	A1	1998-11-05	Boyle et al.		<input type="checkbox"/>
	7	0874045	EP	A1	1998-10-28	Nakagawa et al.		<input type="checkbox"/>
	8	0117543	WO	A2	2001-03-15	Dunstan		<input type="checkbox"/>
	9	0117543	WO	A3	2001-03-15	Dunstan		<input type="checkbox"/>
	10	0118203	WO	A1	2001-03-15	Dunstan et al.		<input type="checkbox"/>
	11	0162932	WO	A1	2001-08-30	Deshpande et al.		<input type="checkbox"/>
	12	0215846	WO	A2	2002-02-28	Sweet et al.		<input type="checkbox"/>
	13	03002713	WO	A2	2003-01-09	Boyle et al.		<input type="checkbox"/>
	14	0816380	EP	A1	1998-01-07	Goto et al.		<input type="checkbox"/>

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	15	0873998	EP	A2	1998-10-28	Nishi et al.		<input type="checkbox"/>
	16	0911342	EP	A1	1999-04-28	Yamaguchi et al.		<input type="checkbox"/>
	17	11009269	JP		1999-01-19	Tsurugai et al.		<input type="checkbox"/>
	18	9014363	WO	A1	1990-11-29	Langley et al.		<input type="checkbox"/>
	19	9634095	WO	A1	1996-10-31	Ni et al.		<input type="checkbox"/>
	20	9828423	WO	A2	1998-07-02	Roodman et al.		<input type="checkbox"/>
	21	9854201	WO	A1	1998-12-03	Ni et al.		<input type="checkbox"/>
	22	9929865	WO	C2	1999-06-17	Choi et al.		<input type="checkbox"/>
	23	9965449	WO	A2	1999-12-23	Callahan et al.		<input type="checkbox"/>
	24	9965495	WO	A1	1999-12-23	Callahan et al.		<input type="checkbox"/>

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**NON-PATENT LITERATURE DOCUMENTS**

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	O'Brien, E. A. et al., "Osteoprotegerin ligand regulates osteoclast adherence to the bone surface in mouse calvaria", Biochem. Biophys. Res. Commun., 274: 281-290 (2000)	<input type="checkbox"/>
	2	Oyajobi et al., "Therapeutic efficacy of a soluble receptor activator of nuclear factor kappa-B-igG Fc fusion protein in suppressing bone resorption and hypercalcemia in a model of humoral hyperclacemia of malignancy", Cancer Res., 61: 2572-2578 (March 15, 2001)	<input type="checkbox"/>
	3	Peterson et al., "AMG162, A fully human monoclonal antibody against receptor activator of NF-Kappa B ligand (RANKL), rapidly and profoundly suppresses bone resorption in cynomolgus monkey", Internatl. Bone and Mineral Society-Japan Bone and Mineral Society, 2003, Poster Session 2 "Osteoclasts", Osaka, Japan (June 6, 2003)	<input type="checkbox"/>
	4	Reddi, A. H., "Bone morphogenesis and modeling: soluble signals sculpt osteosomes in the solid state", Cell, 89: 151-161 (1997)	<input type="checkbox"/>
	5	Reiger et al., Glossary of Genetics and Cytogenetics, p. 17, Springer-Verlag Berlin Heidelberg, New York (1976)	<input type="checkbox"/>
	6	Suda, T. et al., "Modulation of osteoclast differentiation and function by the new members of the tumor necrosis factor receptor and ligand families", Endocr. Rev., 20: 345-357 (1999)	<input type="checkbox"/>
	7	Takada et al., "A simple method to assess osteoclast-mediated bone resorption using unfractionated bone cells", Bone and Mineral, 17: 347-359 (1992)	<input type="checkbox"/>
	8	Takeyama, S. et al., "Low calcium environment effects osteoprotegerin ligand/osteoclast differentiation factor", Biochim. Biophys. Res. Commun., 276: 524-529 (2000)	<input type="checkbox"/>
	9	Teng, Y. A. et al., "Functional human T-cell immunity and osteoprotegerin ligand control alveolar bone destruction in periodontal infection", J. Clin. Invest., 106: 749-752 (2000)	<input type="checkbox"/>
	10	Tsuda et al., "Isolation of a novel cutokine from human fibroblasts that specifically inhibits osteoclastogenesis", Biochemical and Biophysical Research Communications, 234(1): 137-142 (1997)	<input type="checkbox"/>

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11	Udagawa, N. et al., "Osteoblasts/stromal cells stimulate osteoclast activation through expression of osteoclast differentiation factor/RANKL but no macrophage colony-stimulating factors", Bone, 25: 517-523 (1999)	<input type="checkbox"/>
12	Watanabe et al., "Interlukin-4 as a potent inhibitor of bone resorption", Biochemical and Biophysical Research Communications, 172(3): 1035-141 (1990)	<input type="checkbox"/>
13	Willard, D. et al., "Expression, purification, and characterization of the human receptor activator of NF-kappaB ligand (RANKL) extracellular domain", Protein Expr. Purif., 20: 48-57 (2000)	<input type="checkbox"/>
14	Wong et al., "The TRAF Family of Signal Transducers Mediates NF-kB Activation by the TRANCE Receptor", J. Biol. Chem., 273(43): 28355-28359 (1998)	<input type="checkbox"/>
15	Yoneda et al., "Suramin suppresses hypercalcemia and osteoclastic bone resorption in nude mice bearing a human squamous cancer", Cancer Research, 55: 1989-1993 (1995)	<input type="checkbox"/>
16	Zhang et al., "Tumor necrosis factor-alpha (TNF) stimulates RANKL-induced osteoclastogenesis via coupling of TNF type 1 receptor and RANK signaling pathways", J. Biol. Chem., 276(1): 563-568 (January 5, 2001)	<input type="checkbox"/>
17	INTENTIONALLY LEFT BLANK	<input type="checkbox"/>
18	Abbas, A. K. et al., Cellular and Molecular Immunology, W.B. Saunders Company, 2nd Edition, (1994) (TABLE OF CONTENTS ONLY)	<input type="checkbox"/>
19	Bork, P., "Powers and pitfalls in sequence analysis: the 70% hurdle", Genome Res., 10: 398-400 (2000)	<input type="checkbox"/>
20	Bruggemann et al., "Strategies for expressing human antibody repertoires in transgenic mice", Immunology Today, 17(8): 391-397 (1996)	<input type="checkbox"/>
21	Doerks et al., "Protein annotation: detective work for function prediction", Trends in Genetics, 14(6): 248-250 (1998)	<input type="checkbox"/>

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22	Emery, V. G. et al., "Osteoprotegerin is a receptor for the cytotoxic ligand TRAIL", J. Biol. Chem., 273(23): 14363-14367 (1998)	<input type="checkbox"/>
23	Imgenex product use sheet, Catalog No: IMG-185B, Clone: 12A380, Monoclonal antibody to TRANCE/RANKL/OPGL/ODF conjugated with Biotin, Website: <a href="http://www.imgenex.com/antibody_details.php?catalog=IMG-185B">http://www.imgenex.com/antibody_details.php?catalog=IMG-185B</a> , downloaded 01/26/06.	<input type="checkbox"/>
24	Skolnick et al., "From genes to protein structure and function: novel applications of computational approaches in the genomic era", Trends in Biotech, 18(1): 34-39 (2000)	<input type="checkbox"/>
25	Stressgen product use sheet for product AAM-425AF, anti-TRANCE/RANKL, clone 12A668, revised 6/27/05.	<input type="checkbox"/>
26	Yang et al., "Human group-specific component (Gc) is a member of the albumin family", Proc. Natl. Acad. Sci., USA, 82: 7994-7998 (1985)	<input type="checkbox"/>
27	Boyle v. Gorman and Mattson, Board of Patent Appeals and Interferences, Interference No. 104,336, Paper No. 39	<input type="checkbox"/>
28	Camerini et al., "The T Cell Activation Antigen CD27 is a Member of the Nerve Growth Factor/Tumor Necrosis Factor Receptor Gene Family", J. Immunol., 147: 3165-3169 (1991)	<input type="checkbox"/>
29	Caux et al., "Activation of Human Dendritic Cells through CD40 Cross-Linking", J. Exp. Med., 180: 1263-1272 (1994)	<input type="checkbox"/>
30	Crooke, "An overview of progress in antisense therapeutics", Antisense & Nucleic Acid Drug Dev., 8: 115-122 (1998)	<input type="checkbox"/>
31	Durkop et al., "Molecular cloning and expression of a new member of the nerve growth factor receptor family that is characteristic for Hodgkin's disease", Cell, 68: 421-427 (1992)	<input type="checkbox"/>
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**EXAMINER SIGNATURE**

Examiner Signature	Date Considered
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